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Date: August 21, 2006

Signature:

(Quyen Nguyen)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/825,519

Confirmation No.: 8157

Filing Date: April 15, 2004

Inventor(s): E. Skott GREENHALGH

Title: TOOL WITH DEPLOYABLE CUTTING BLADE

Examiner: J. Williams

Group Art Unit: 3722

## RESPONSE TO NON-FINAL OFFICE ACTION

Mail Stop Amendment  
Commissioner for Patent  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is in response to the non-final Office Action dated April 20, 2006 for which a response is due on July 20, 2006. Filed herewith is a Petition and fee for a one-month extension of time, thereby extending the deadline for response to August 21, 2006 (August 20, 2006 fell on a Sunday). Accordingly, this response is timely filed. Reconsideration and allowance of the pending claims, as amended, in light of the Remarks presented herein are respectfully requested.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 5 of this paper.

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**In the claims**

1. – 7. (cancelled)

8. (currently amended):      A tool for making an undercut in a substrate, said tool comprising:

an elongated bit shaft having a cutting tip positioned at one end and a tang positioned at an opposite end, said bit shaft being rotatable about a lengthwise axis to bore an opening in said substrate with said cutting tip;

a chamber located within said bit shaft and positioned between said cutting tip and said tang, said chamber having an opening providing access thereto;

a cutting blade positioned within said chamber, said cutting blade being movable between a retracted position within said chamber and an extended position projecting outwardly from said bit shaft through said opening; and

means for moving said cutting blade between said retracted and extended positions, said cutting blade forming said undercut when in said extended position upon rotation of said bit shaft. A tool according to Claim 1, wherein said blade moving means comprises an axle positioned within said chamber, the chamber being defined by first and second sidewalls angularly oriented with respect to one another, said axle being substantially lengthwise aligned with and offset from the longitudinal axis of said bit shaft, said cutting blade being mounted on said axle between said sidewalls for pivoting motion into and out of said chamber, rotation of said bit shaft in a first direction causing said blade member to pivot on said axle and move into said chamber against said first sidewall upon contact between said blade and said substrate, rotation of said bit shaft in an opposite direction causing said cutting blade to pivot on said axle and move out of said chamber and into engagement with said second sidewall upon contact between said blade and said substrate.

9. (original): A tool according to Claim 8, wherein said first and second sidewalls are oriented at 90° to one another.

10. (original): A tool according to Claim 8, wherein said first direction corresponds with the direction of advance of said bit shaft through said substrate.

11. (original): A tool according to Claim 8, further comprising a biasing member engaging said cutting blade and biasing it into said retracted position.

12. – 18. (cancelled)

19. (new): A tool according to Claim 8, wherein the bit shaft configured to have a helical groove along the length of the bit shaft.

20. (new): A tool according to Claim 11, wherein the biasing member comprises a return spring.

21. (new): A tool according to Claim 22, wherein the return spring comprises a coil spring.

22. (new): A tool according to Claim 8, wherein the lengthwise axis is substantially radially central to the bit shaft.

23. (new): A tool according to Claim 11, wherein the biasing member is coaxial with the axle.

24. (new): A tool according to Claim 8, further comprising a first stop configured to limit rotation of the cutting blade.

25. (new): A tool according to Claim 24, wherein the first stop comprises the first sidewall.

26. (new): A tool according to Claim 24, wherein the first stop is configured to limit rotation of the cutting blade in the first direction.

27. (new): A tool according to Claim 24, further comprising a second stop configured to limit rotation of the cutting blade.

28. (new): A tool according to Claim 27, wherein the second stop comprises the second sidewall.

29. (new): A tool according to Claim 27, wherein the second stop is configured to limit rotation of the cutting blade in the second direction.

30. (new): A tool according to Claim 8, wherein the second direction corresponds with the direction of withdraw of the bit shaft through the substrate.

31. (new): A tool according to Claim 8, wherein the first sidewall and the second sidewall comprise of a material of the bit shaft.

32. (new): A tool according to Claim 31, wherein the material is steel.

33. (new): A tool according to Claim 32, wherein the material is stainless steel.

34. (new): A tool according to Claim 31, wherein the material is titanium.

**REMARKS**

Claims 1-18 were pending in the present application. Claims 2-7 and 12-18 were withdrawn from consideration. By virtue of this response, claims 1-7 and 12-18 have been cancelled, claim 8 has been amended, and new claims 19-34 have been added. Accordingly, claims 8-11 and 19-34 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. Support for new claims 19-34 can be found in pages 13-15 and 20 of the specification. No new matter has been added.

**Allowable Subject Matter**

Claims 8-11 are allowed. Accordingly, claim 8 has been rewritten in independent format. Accordingly, claim 8 and all its dependent claims should be in condition for allowance.

**Rejections under 35 USC §102(b)**

Claim 1 is rejected under 35 USC §102(b) as allegedly being anticipated by Giustino (U.S. Patent No. 3,815,694).

In an effort to advance the application to allowance, claim 1 has been cancelled.

**CONCLUSION**

In view of the above, each of the presently pending claims in this application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections and pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,



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